



6SN7-GTA

6SN7-GTA

MEDIUM-MU TWIN TRIODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage 6.3 ac or dc volts
Current 0.6 amp

Direct Interelectrode Capacitances (With no external shield):

	Unit No. 1	Unit No. 2	
Grid to plate	4	3.8	$\mu\mu\text{f}$
Grid to cathode and heater . .	2.2	2.6	$\mu\mu\text{f}$
Plate to cathode and heater . .	0.7	0.7	$\mu\mu\text{f}$

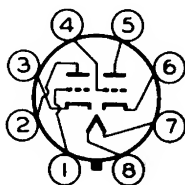
Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	90	250	volts
Grid Voltage	0	-8	volts
Amplification Factor	20	20	volts
Plate Resistance (Approx.) . . .	6700	7700	ohms
Transconductance	3000	2600	μmhos
Plate Current	10	9	ma
Plate Current for grid voltage of -12.5 volts	-	1.3	ma
Grid Voltage (Approx.) for plate current of 10 μamp	-7	-18	volts

Mechanical:

Mounting Position Any
Maximum Overall Length 3-5/16"
Maximum Seated Length 2-3/4"
Maximum Diameter 1-9/32"
Bulb T-9
Base Short Intermediate-Shell Octal 8-Pin
with External Barriers (JETEC No. B8-58)
Basing Designation for BOTTOM VIEW 8BD

Pin 1 - Grid of
Unit No. 2
Pin 2 - Plate of
Unit No. 2
Pin 3 - Cathode of
Unit No. 2
Pin 4 - Grid of
Unit No. 1



Pin 5 - Plate of
Unit No. 1
Pin 6 - Cathode of
Unit No. 1
Pin 7 - Heater
Pin 8 - Heater

AMPLIFIER - Class A₁

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE 450 max. volts
CATHODE CURRENT 20 max. ma

JUNE 14, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA 1

6SN7-GTA



6SN7-GTA

MEDIUM-MU TWIN TRIODE

PLATE DISSIPATION:

Either plate 5 max. watts
Both plates (Both units operating) . . . 7.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 200 max. volts
Heater positive with respect to cathode 200[▲] max. volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation 1 max. megohm

Typical Operation as Resistance-Coupled Amplifier:

See RESISTANCE-COUPLED AMPLIFIER CHART No. 29
at front of this Section

HORIZONTAL DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Center Values:

For operation in a 525-line, 30-frame system[□]

DC PLATE VOLTAGE 450 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE[♣] 600 max. volts
CATHODE CURRENT:
Peak 300 max. ma
Average 20 max. ma

PLATE DISSIPATION:

Either plate 5 max. watts
Both plates (Both units operating) . . . 7.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 200 max. volts
Heater positive with respect to cathode 200[▲] max. volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias, grid-resistor bias, or
cathode-bias operation 2.2 max. megohms

VERTICAL DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Center Values:

For operation in a 525-line, 30-frame system[□]

DC PLATE VOLTAGE 450 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE[♣] 400 max. volts
CATHODE CURRENT:
Peak 70 max. ma
Average 20 max. ma

[▲], [□], [♣], [#]: See next page.

JUNE 14, 1954

TUBE DIVISION

TENTATIVE DATA 1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



6SN7-GTA

6SN7-GTA

MEDIUM-MU TWIN TRIODE

PLATE DISSIPATION:

Either plate 5 max. watts
Both plates (Both units operating) . . . 7.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 200 max. volts
Heater positive with respect to cathode 200[▲] max. volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias, grid-resistor bias, or
cathode-bias operation 2.2 max. megohms

VERTICAL DEFLECTION AMPLIFIER

Values are for Each Unit

Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system[□]

DC PLATE VOLTAGE 450 max. volts

PEAK POSITIVE-PULSE PLATE VOLTAGE[■]
(Absolute Maximum) . . . 1500[■] max. volts

PEAK NEGATIVE-PULSE GRID VOLTAGE 250 max. volts

CATHODE CURRENT:

Peak 70 max. ma
Average 20 max. ma

PLATE DISSIPATION:

Either plate 5 max. watts
Both plates (Both units operating) . . . 7.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 200 max. volts
Heater positive with respect to cathode 200[▲] max. volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For cathode-bias operation 2.2 max. megohms

[▲] The dc component must not exceed 100 volts.

[□] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

[■] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

^{*} This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

[■] Under no circumstances should this absolute value be exceeded.

JUNE 14, 1954

TUBE DIVISION

TENTATIVE DATA 2

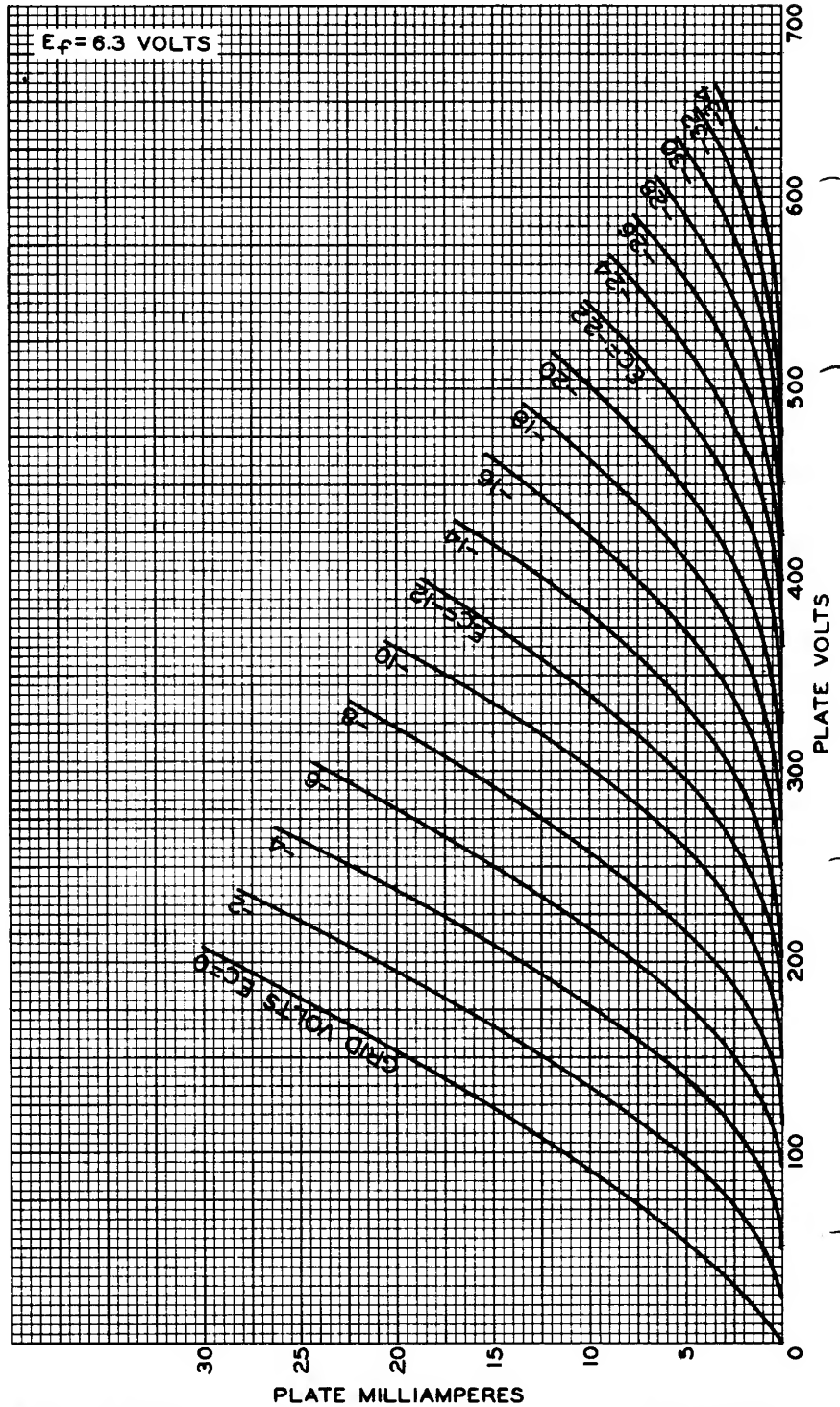
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

6SN7-GTA



6SN7-GTA

AVERAGE PLATE CHARACTERISTICS
FOR EACH UNIT



APRIL. 28, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

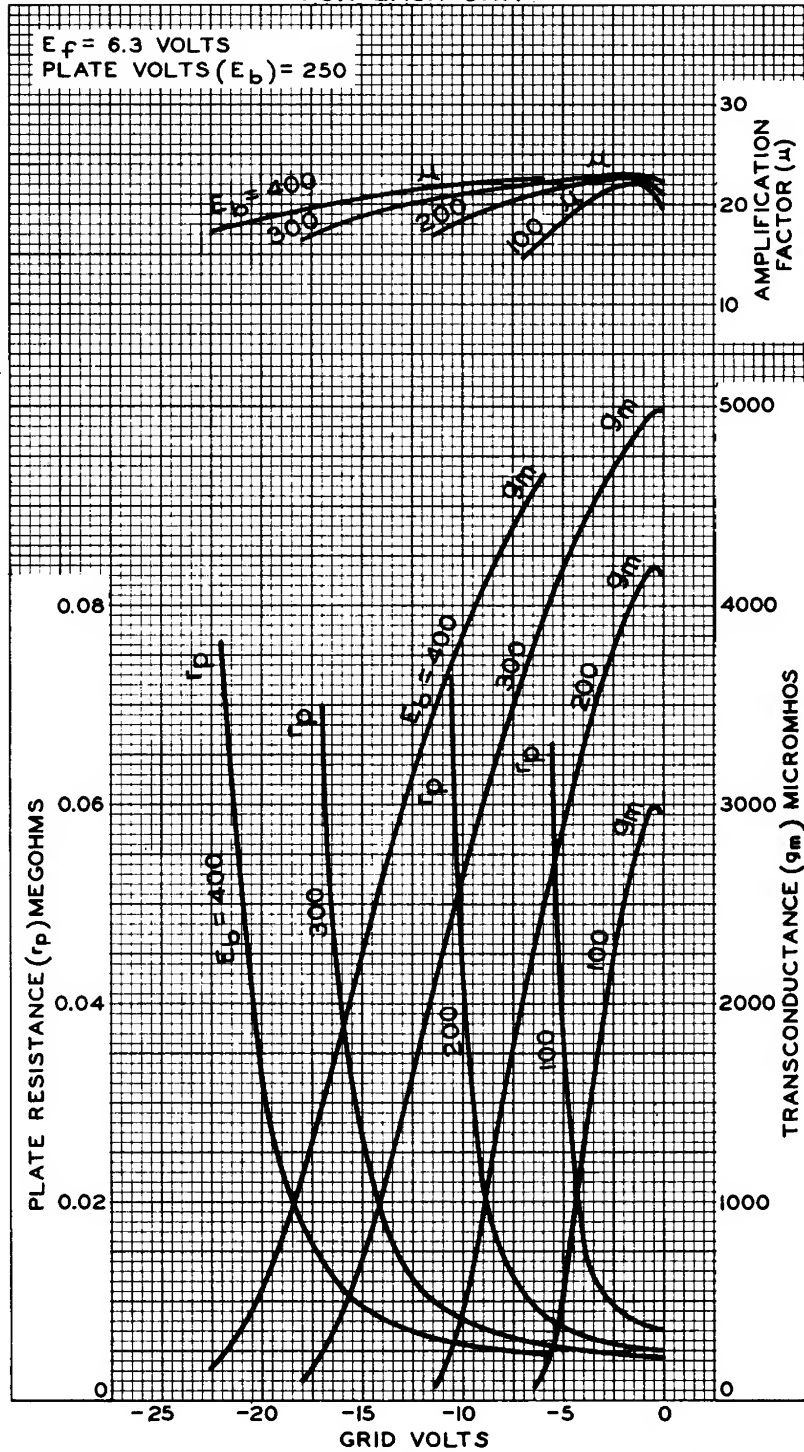
92CM-8322



6SN7-GTA

AVERAGE CHARACTERISTICS
FOR EACH UNIT

6SN7-GTA



OCT. 14, 1953

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-8122